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CLAIMS

1. A liquid discharge head comprising:
a plurality of outlets for discharging liquid;
a plurality of liquid channels, each liquid
5 channel communicating with the corresponding outlet;
an inlet for supplying liquid to the liquid
channels, the inlet being provided on a substrate;
a plurality of recording elements disposed in
the corresponding liquid channel opposite to the
10 plurality of outlets, each recording element
including a heating resistor provided on the
substrate, wherein
the outlets include first outlets disposed
relatively closer to the inlet and second outlets
15 disposed relatively further from the inlet and are
arranged in a staggered pattern in which the first
outlets and the second outlets are disposed
alternately on at least one side of the inlet,
the recording elements include first recording
20 elements corresponding to the first outlets and
second recording elements corresponding to the second
outlets, and
an aspect ratio based on the flow direction of
the liquid channels of the first recording elements
25 is greater than the aspect ratio of the second
recording elements.

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2. The liquid discharge head according to Claim 1, wherein

each droplet discharged from the first outlets and each droplet discharged from the second outlets
5 have substantially the same volume, and

the value obtained by dividing the area of one of the second recording elements by the area of one of the first recording elements is smaller than 0.95 and greater than 0.60 and the value obtained by
10 dividing the aspect ratio one of the second recording elements by the aspect ratio of one of the first recording elements is smaller than 0.95.

3. The liquid discharge head according to Claim
15 1, wherein the volume of each droplet discharged from the second outlets is smaller than the volume of each droplet discharged from the first outlets.

4. The liquid discharge head according to Claim
20 3, wherein the volume of each droplet discharged from the second outlets is 0.4 to 1.0 picoliters.

5. The liquid discharge head according to Claim 1, wherein

25 the liquid channels include first liquid channels where the first recording elements are disposed and second liquid channels where the second

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recording elements are disposed, and

the width of sections of the second channels interposed between adjacent first recording elements is substantially the same as the width of the first recording elements or narrower than the width of the first recording elements.

6. The liquid discharge head according to Claim 1, further comprising:

10 a first outlet group including first outlets;
and

a second outlet group including second outlets,
wherein the first and second outlet groups are disposed on both sides of the inlet, and

15 the first outlet group and the second outlet group are offset a half pitch with respect to each other.

7. The liquid discharge head according to Claim 1, further comprising:

20 a power supply unit configured to supply driving voltages to the recording elements;

drivers capable of switching condition of the power distribution to the recording elements, the drivers being disposed on the recording elements; and

25 logic circuits configured to selectively drive the drivers,

wherein the logic circuits include first and

second driving time determining signal supplying
units configured to output a signal corresponding to
the driving time of the recording elements to the
drivers, the first driving time determining signal
5 supplying unit being provided for the first recording
elements and the second driving time determining
signal supplying unit being provided for the second
recording elements.

10 8. The liquid discharge head according to Claim
1, further comprising:

first and second power supply unit configured
to supply driving voltages to the recording elements;
drivers capable of switching condition of the
15 power distribution to the recording elements, the
drivers being disposed on recording elements; and
logic circuits configured to selectively drive
the drivers,

wherein the first power supply unit is provided
20 for the first recording elements and the second power
supply unit is provided for the second recording
elements.